

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION D/B/A/ AVISTA UTILITIES

Respondent.

DOCKETS UE-220053, UG-220054, and UE-210854 (Consolidated)

**AARON TAM
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

EXHIBIT AT-24r

Avista's Response to Public Counsel Data Request No. 305, with Attachment D

REVISED September 20, 2022

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	WASHINGTON	DATE PREPARED:	06/21/2022
CASE NO.:	220053/54/210854	WITNESS:	David Howell
REQUESTER:	Public Counsel	RESPONDER:	David James
TYPE:	Data Request	DEPT:	Wildfire Resiliency
REQUEST NO.:	PC – 305	TELEPHONE:	(509) 495-4185
		EMAIL:	dave.james@avistacorp.com

SUBJECT: RE: Wildfire Plan
 Refer to David R. Howell, Exh. DRH-2 at 9–10, 14, 18, and 22.

REQUEST:

Avista’s 2022 Wildfire Resiliency Plan shows actual, expected, and projected capital and O&M costs for each wildlife plan program.

- a) Please provide the wildfire program cost summary tables in Howell’s Exhibit DRH-2 in Excel format (Table 3 at 9, Table 4 at 10, Table 6 at 14, Table 7 at 18, and Table 8 at 22) with underlying formulas intact that provide the basis for these costs.
- b) Please explain the basis of projected cost estimates for each of the wildfire programs.
- c) Please provide in Excel format the actual, expected, and projected number of units, quantities, wildfire metric targets, and other data that fall under each wildfire program for years 2020–2029.

RESPONSE:

- a) See PC-DR-305 Attachment A – Tab “2022”. Within the excel file, Column A, see coding for rows included in each table included in Exh. DRH-2 pages, 9-10, 14, 18 and 22, providing data available.

Howell Exhibit DRH-2 is the 2022 Wildfire Resiliency Plan and Table 3 of Page 9 indicates the cost forecast from 2020 through 2029. The Wildfire Plan was updated in December of 2021 so that it could be included in Testimony. At that time, year-end actual spend values for 2020 were indicated in the table but 2021 values reflected year-end expected (forecasted) values. Remaining values by year from 2022 to 2029 reflected budget level estimates. The table is reprinted below.

AVISTA WILDFIRE PLAN PROGRAMS	Actual	Expected	Projected								10-Yr. Total
			2020	2021	2022	2023	2024	2025	2026	2027	
Capital											
Grid Hardening	\$3,189,759	\$17,150,000	\$22,795,000	\$25,350,000	\$27,350,000	\$29,720,000	\$29,720,000	\$30,300,000	\$30,300,000	\$30,300,000	\$246,174,759
Situational Awareness	\$228,680	\$1,675,000	\$2,250,000	\$2,150,000	\$3,650,000	\$5,150,000	\$5,150,000	\$5,150,000	\$5,150,000	\$5,150,000	\$35,703,680
Operations & Response	\$2,510	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,510
TOTAL CAPITAL	\$3,420,949	\$18,825,000	\$25,045,000	\$27,500,000	\$31,000,000	\$34,870,000	\$34,870,000	\$35,450,000	\$35,450,000	\$35,450,000	\$281,880,949
O&M											
Grid Hardening	\$315,372	\$947,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$6,862,372
Risk Vegetation Management	\$1,789,817	\$4,350,000	\$6,985,000	\$7,134,500	\$7,385,000	\$6,535,000	\$6,535,000	\$6,285,000	\$6,085,000	\$5,985,000	\$59,069,317
Situational Awareness	\$0	\$0	\$150,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$675,000
TOTAL O&M	\$2,105,189	\$5,297,000	\$7,835,000	\$7,909,500	\$8,160,000	\$7,310,000	\$7,310,000	\$7,060,000	\$6,860,000	\$6,760,000	\$66,606,689
TOTAL	\$5,526,138	\$24,122,000	\$32,880,000	\$35,409,500	\$39,160,000	\$42,180,000	\$42,180,000	\$42,510,000	\$42,310,000	\$42,210,000	\$348,487,638

Table 3. Wildfire Programs Actual Expenditures and Budget

- b) See PC-DR-305 Attachment A. See also Company witness Howell testimony at Exh. DRH-1T and Exh. DRH-2-4 for detailed description related to the Company's Wildfire Resiliency Plan and cost determinations. Additional information provided to all parties in Avista's prior WA general rate case (Dockets UE-200900, et al) not provided as exhibits to this proceeding, which influenced initial Wildfire Plan cost planning, are provided as PC-DR-305 Attachment B "Wildfire Risk Analysis Summary – September 2019" and PC-DR-305 Attachment C "Wildfire Resiliency Cost Forecast – January 2020."

Cost estimates evolve over time and reflect updates to scope of work, cost of resources, contractual obligations, and scheduling. The 2022 cost trend document referenced as "Attachment A-Tab 2022" includes actual year-end costs for 2021 but otherwise mirrors the planned capital and operating & maintenance expenses as shown in the Howell testimony above.

The 2022 cost trend is reprinted on the following pages.

System Total: Wildfire Resiliency Capital Project Cost Forecast 2020-2029 (\$ in 000's)

System & Transmission	2020 YE Actual	2021 YE Actual	Budget Input (original)								10-yr	
			2022	2023	2024	2025	2026	2027	2028	2029		
WFRES Transmission Planning	92	187	147	147	147	147	147	147	147	147	147	1,455
Fire-Weather Dashboard		0	150	75	75	75	75	75	75	75	75	675
Digital Data Collection (Geo Digital)	491	450	750	750	750	750	750	750	750	750	750	6,941
Transmission FR Pole Wraps	178	421	550	550	550	550	550	550	550	550	550	4,999
Fuel Reduction Partner		0	300	300	300	300	300	300	300	300	300	2,400
Nox-PC Fire Damage (risk tree)		513										513
Transmission Inspection Pgm	137	172	150	150	150	150	150	150	150	150	150	1,509
Transmission Total	\$899	\$1,743	\$2,047	\$1,972	\$18,493							
	Operating		Budget Input (original)									
Electric Distribution	2020 YE Actual	2021 YE Actual	2022	2023	2024	2025	2026	2027	2028	2029	10-yr	
WFRES Distribution Planning	233	269	294	294	294	294	294	294	294	294	2,854	
WA Dx Risk Tree		2,111	3,686	3,232	3,232	2,688	2,688	2,688	2,688	2,688	25,700	
ID Dx Risk Tree	1,239	3,152	1,899	1,818	1,818	1,512	1,512	1,512	1,512	1,512	17,486	
Customer Choice RTRP		0	350	500	750	750	750	500	300	200	4,100	
Digital Data Collection (AiDASH)	59	327	535	535	535	535	535	535	535	535	4,666	
Distribution O&M	\$1,531	\$5,859	\$6,764	\$6,379	\$6,629	\$5,779	\$5,779	\$5,529	\$5,329	\$5,229	\$54,806	
T&D O&M (grand total)	\$2,430	\$7,602	\$8,811	\$8,351	\$8,601	\$7,751	\$7,751	\$7,501	\$7,301	\$7,201	\$73,300	

System Total: Wildfire Resiliency Capital Project Cost Forecast 2020-2029 (\$ in 000's)

David James Rev.													
6/20/2022													
All Values in \$000's													
Changes to WF2021 Baseline		Budget Input											
	<i>2020 YE</i>	<i>2021 YE</i>											
System & Transmission	<i>Actuals</i>	<i>Actuals</i>	2022	2023	2024	2025	2026	2027	2028	2029		10-yr	
Fire-Weather Dashboard	197.75	189											386
Conforming Rights-of-Way		0	0	0	0	0	0	0	0	0	0	0	0
Transmission Inspection Pgm	1.27	1	200	200	200	200	200	200	200	200	200	200	1,602
Transmission Steel Conversion	73.57	5,455	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	37,528
Transmission Total	\$273	\$5,644	\$4,200	\$39,517									
		Budget Input											
	<i>2020 YE</i>	<i>2021 YE</i>											
Electric Distribution	<i>Actuals</i>	<i>Actuals</i>	2022	2023	2024	2025	2026	2027	2028	2029		10-yr	
Fire Ignition Tracking System	2.51	-3	0										0
Distribution Auto DLM	30.53	1,355	750	650	650	650	650	650	650	650	650	650	6,686
Substation Auto DLM	0.40	515	1,500	1,500	3,000	4,500	4,500	4,500	4,500	4,500	4,500	4,500	29,015
WPM Make-Ready for GH (XD007)		15	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	24,015
OE Sponsored GH (XD008)		1											
WA Dist Grid Hardening (XD005)	1,513.27	7,134	9,000	11,500	12,500	14,700	14,700	14,700	14,700	14,700	14,700	14,700	115,147
ID Dist Grid Hardening (XD006)	1,601.65	4,714	6,595	6,650	7,650	7,820	7,820	8,400	8,400	8,400	8,400	8,400	68,051
Distribution Total	\$3,148	\$13,731	\$20,845	\$23,300	\$26,800	\$30,670	\$30,670	\$31,250	\$31,250	\$31,250	\$31,250	\$31,250	\$242,913
T&D CapX Total	\$3,421	\$19,376	\$25,045	\$27,500	\$31,000	\$34,870	\$34,870	\$35,450	\$35,450	\$35,450	\$35,450	\$35,450	\$282,431

In the Howell testimony, forecasted capital expense totaled \$281,880,949. The current cost trend estimate is \$283,431,000. A net difference (increase) of \$1,550,051.

In the Howell testimony, forecasted operating and maintenance expense totaled \$66,606,689. The current cost trend estimate is \$73,300,000. A net difference (increase) of \$6,693,311. The most significant cost trend escalation is reflected in the distribution risk tree program. As part of Wildfire Resiliency, Avista is committed to annual inspection of all distribution lines and removing dead, dying, or diseased trees (hazard trees) within strike distance of overhead powerlines. While this significantly reduces the spark-ignition potential between electric lines and vegetation, it does represent a cost driver to the program.

- c) Annual balances are provided by capital and O&M category within PC-DR-305 Attachment A. The scope of grid hardening as 3,240 miles out of the 7,650 mile of the Company's overhead distribution system, and the Company has pledged to inspect and remove hazard trees from all transmission and distribution lines. See PC-DR-305 Attachment D (column A) for available unit information for the 2022 planning cycle.

AVISTA'S RESPONSE TO PUBLIC COUNSEL'S DATA REQUEST NO. 305

ATTACHMENT D

David James Rev.
 9/20/2022

All Values in \$000's

Changes to WF2021 Baseline

Capital

Capital Budget Forecast

Unit Estimates provided as part of WA GRC PC-305
 Internal Labor to Develop Computer Algorithm (1.5 FTE)
 Removed from WFRES Plan 2021
 Maintenance followup. Budget allocation

Transmission Steel Replacement \$45k per structure

System & Transmission	2022 Expected CAPx	2020 YE Actuals	2021 YE Actuals	2022	2023	2024	2025	2026	2027	2028	2029	10-yr	comments and notes
Fire-Weather Dashboard	0	197.75	189	0	0	0	0	0	0	0	0	386	2020-2021 Development of FW Dashboard Version 1.0 and 2.0
Conforming Rights-of-Way	0		0	0	0	0	0	0	0	0	0	0	Removed from plan August 2021. See WFRES 2022 for explanation
Transmission Inspection Pgm	200	1.27	1	200	200	200	200	200	200	200	200	1,602	CapX follow-up on Tx aerial and ground patrols related to fire ignition
Transmission Steel Conversion	4,000	73.57	5,455	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	37,528	See 2022 WFRES Plan for updated decision matrix on where wood pole will be converted to steel. Will be based on fire history on a go-forward basis.
Transmission Total	\$4,200	\$273	\$5,644	\$4,200	\$39,517	Not WUI							

\$60k per unit. Midline reclosers
 \$750k per substation. Add SCADA comm and equipment
 \$16k per mile. Advance 1,500 line miles into 2022-2029
 Placeholder
 \$60k per mile.
 \$60k per mile.

Electric Distribution	2022 Expected CAPx	2020 YE Actuals	2021 YE Actuals	2022	2023	2024	2025	2026	2027	2028	2029	10-yr	comments and notes
Fire Ignition Tracking System	0	2.51	-3	0								0	OMT work around is allowing tracking for fire-ignition events. Any new development of fire ignition tracking will be paired with the OMS replacement project.
Distribution Auto DLM	750	30.53	1,355	750	650	650	650	650	650	650	650	6,686	Replacing midline reclosers with DLM Automation devices.
Substation Auto DLM	1,500	0.40	515	1,500	1,500	3,000	4,500	4,500	4,500	4,500	4,500	29,015	
WPM Make-Ready for GH (XD007)	3,000		15	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	24,015	
OE Sponsored GH (XD008)			1										
WA Dist Grid Hardening (XD005)	9,000	1,513.27	7,134	9,000	11,500	12,500	14,700	14,700	14,700	14,700	14,700	115,147	
ID Dist Grid Hardening (XD006)	6,595	1,601.65	4,714	6,595	6,650	7,650	7,820	7,820	8,400	8,400	8,400	68,051	
Distribution Total	\$20,845	\$3,148	\$13,731	\$20,845	\$23,300	\$26,800	\$30,670	\$30,670	\$31,250	\$31,250	\$31,250	\$242,913	
T&D CapX Total	\$25,045	\$3,421	\$19,376	\$25,045	\$27,500	\$31,000	\$34,870	\$34,870	\$35,450	\$35,450	\$35,450	\$282,431	

Total Grid Hardening:			PLAN									Totals
Distribution	2020 act	2021 act	2022	2023	2024	2025	2026	2027	2028	2029		
Grid Hardening Budget	\$3,115	\$11,848	\$15,595	\$18,150	\$20,150	\$22,520	\$22,520	\$23,100	\$23,100	\$23,100	183,198	
Miles Projected at \$60k/mi (forecast)	67	146	260	303	336	375	375	385	385	385		
Cumulative Miles	67	213	472	775	1,111	1,486	1,861	2,246	2,631	3,016		

Operating

O&M Budget Forecast

Internal unloaded WF labor 33% (4 FTE)
 Subscription to Weather data service
 \$400 per mile. 1875 miles non-urban transmission
 \$90 per pole wrap
 \$2k per acre treated
 2021 only
 \$2000 per hour helicopter resource

System & Transmission	2022 Expected O&M	2020 YE Actual	2021 YE Actual	2022	2023	2024	2025	2026	2027	2028	2029	10-yr	comments and notes
WFRES Transmission Planning	147	92	187	147	147	147	147	147	147	147	147	1,455	WFRES Team Labor based on 2021 HC
Fire-Weather Dashboard	150		0	150	75	75	75	75	75	75	75	675	On going support of FW DB
Digital Data Collection (Geo Digital)	750	491	450	750	750	750	750	750	750	750	750	6,941	Based on \$450/mile (GeoDigital)- 2022 is full system
Transmission FR Pole Wraps	550	178	421	550	550	550	550	550	550	550	550	4,999	Genic fire mesh \$90/pole (assume H-frame \$500/structure 500 structures/year - 8 structure/miles - 62.5 miles/year)
Fuel Reduction Partner	300		0	300	300	300	300	300	300	300	300	2,400	Estimated from WS. ~ \$1k per acre
Nox-PC Fire Damage (risk tree)			513									513	
Transmission Inspection Pgm	150	137	172	150	150	150	150	150	150	150	150	1,509	Transmission Fire Inspection and O&M followup
Transmission O&M	\$2,047	\$899	\$1,743	\$2,047	\$1,972	\$18,493							

Internal unloaded WF Labor 67% (4 FTE)
 \$915 per tree removal
 \$915 per tree removal
 \$5k per household
 \$70 per mile

Electric Distribution	2022 Expected O&M	2020 YE Actual	2021 YE Actual	2022	2023	2024	2025	2026	2027	2028	2029	10-yr	comments and notes
WFRES Distribution Planning	294	233	269	294	294	294	294	294	294	294	294	2,854	WFRES Team Labor based on 2021 HC
WA Dx Risk Tree	5,544		2,111	3,686	3,232	3,232	2,688	2,688	2,688	2,688	2,688	25,700	
ID Dx Risk Tree	2,856	1,239	3,152	1,899	1,818	1,818	1,512	1,512	1,512	1,512	1,512	17,486	Estimate from AM C H. 100% system minus heavy incorporated and no veg areas (17%). 11.02.21
Customer Choice RTRP	350		0	350	500	750	750	750	500	300	200	4,100	Includes Public Outreach, Media messaging, and voucher remove/replace program
Digital Data Collection (AiDASH)	535	59	327	535	535	535	535	535	535	535	535	4,666	Based on AiDash Contract --- 70\$/miles for 7650 miles OH System (535 base, 2021 reflects a negotiated price to establish baseline)
Distribution O&M	\$9,579	\$1,531	\$5,859	\$6,764	\$6,379	\$6,629	\$5,779	\$5,779	\$5,529	\$5,329	\$5,229	\$54,806	Dx Grid Hardening Blended WA/ID Rate = \$59.1k/mile
T&D O&M	\$11,626	\$2,430	\$7,602	\$8,811	\$8,351	\$8,601	\$7,751	\$7,751	\$7,501	\$7,301	\$7,201	\$73,300	